

Remarks/Arguments

Applicants respectfully request reconsideration of this application in view of the following remarks. Claims 1, 16 and 31 are amended. As a result, upon entry of the amendment claims 1-40 are pending, with claims 1, 16 and 31 being independent claims. Because no claims are added or rewritten in independent form, it is believed that no fees in addition to \$1,050.00 extension of time fee are due for the consideration of this paper. However, if fees are due, the Commissioner is authorized to charge such fees to deposit account number 13-2855.

Claim Amendments

It is respectfully submitted that the claims as amended above are supported by the application as originally filed in the Patent Office on September 30, 2003, that the amended claims satisfy the written description requirement and the other requirements of 35 U.S.C. § 112, and that no new matter is being added. Claims 1, 16 and 31 are amended to more clearly recite that the flow of electrical signals between the first and second ends of the bus are interrupted in response to the detection of a default condition. In claims 1 and 16, the control unit opens the switch unit to prevent the flow of electrical signals in response to detecting a fault condition at the control unit. Claim 31 more clearly recites interrupting the flow of electrical signals along the first transmission path in response to detecting a fault condition on the second transmission path. The amendments to claims 1, 16 and 31 are supported by the application as originally filed at least at Fig. 4 and the accompanying text at paragraphs [0035]- [0059] that illustrate and describe the safety device 40 having, *inter alia*, relays 50, 52 connected to transmission paths 25, 27, respectively, and control unit 80 connected to a separate transmission path 29, with the control unit 80 opening the relays 50, 52 to interrupt the flow of electrical signals along the transmission paths 25, 27 in response to the control unit 80 detecting a fault condition along the separate transmission path 29. Applicants respectfully submit that the amendments to claims 1, 16 and 31 do not present new matter and do not raise new issues, and respectfully request entry of the present amendments and consideration of the claims as amended.

Claim Rejections under 35 U.S.C. § 103(a)

Applicants respectfully traverse the rejections of each of claims 1-40 as obvious over Eryurek et al. (U.S. Pat. No. 6,594,603) (“Eryurek”) in view of Christensen et. al. (U.S. Pat.

No. 6,912,671) (“Christensen”). Reconsideration and withdrawal of the rejections is respectfully requested.

Initially, applicants reassert the arguments set forth in the previous response as setting forth sufficient bases for overcoming the proposed combination of references. Applicants provided extensive and exhaustive detail for multiple bases as to why the claims are not obvious in view of the combination of references, including the fact that neither Eryurek nor Christensen teaches a process control system wherein the flow of electrical signals along a transmission path is interrupt **in response to detecting a fault condition**. In response, the final Office action copied the rejections from the first Office action, apparently verbatim, and responded to the applicants’ arguments by merely pointing out that applicants cannot attack references individually where they are used in combination, that both references are related to control process using the Fieldbus protocol, and that Christensen teaches the use of switching circuitry. Absent is any specific discussion of any of the points raised in the previous response, including the absence of a teaching by either reference of interrupting the flow of electrical signals along a transmission path in response to detecting a fault condition. The response suggests the pertinence of Ott et al. (U.S. Pat. No. 6,898,468) (“Ott”), but applicants wish to point out that Ott would only qualify as a reference under 35 U.S.C. §102(e), is commonly assigned along with the present application to Fisher-Rosemount Systems, Inc. and both were subject to a common obligation to of assignment to the same at the time of invention, and, consequently, is unavailable for use in an obviousness rejection pursuant to 35 U.S.C. §103(c). If the arguments previously set forth are still not deemed to overcome the proposed combination of references, applicants respectfully request the courtesy of a response to the arguments that addresses the applicants’ arguments and clearly explains the reasons that the points raised by the applicants are not believed to overcome the references.

In the rejections of independent claims 1, 16 and 31, the final Office action appears to assert that claim 19 of Christensen teaches the interruption of the flow of electrical signals in response to detecting a fault condition. Applicants respectfully disagree. Claim 19 of Christensen, similar to the specification of Christensen as detailed in the previous response, recites disconnecting a signal line as part of a diagnostic routine, and not in response to a fault condition. Claim 18 from which claim 19 depends recites a system for detecting a wiring fault that includes a first routine that causes a wiring fault detection unit to connect a signal line of a protocol bus to a measurement block, a second routine that causes the wiring fault detection unit to measure an electrical characteristic associate with the protocol bus using the measurement block, a third routine that determines a type of wiring fault based on

the measured electrical characteristic, and a fourth routine that reports the type of fault to the user interface. Claim 18 does not discuss disconnecting the protocol bus, the signal line or any other transmission path for any reason, let alone in response to a default condition. Claim 19 further defines the second routine of claim 18 by reciting that the measurement routine includes causing the wiring fault detection unit to disconnect the signal line of the protocol bus from a communication circuit. First, claim 19 does not state that the signal line is disconnected in response to detecting a default condition. Second, disconnection of the signal line occurs before a wiring fault is detected and, consequently, necessarily cannot occur in response to detecting a wiring fault. The second routine must take the measurement of the electrical characteristic before the third routine can determine the type of wiring fault.

Claims 18 and 19 are consistent with the teaching in the specification of disconnecting the communication circuitry of the linking device 28 from the bus 30 when certain of the measurement blocks 158-168 of the wiring fault detection unit 128 are connected to signal lines of the bus 30. (*See, e.g.*, Christensen, col. 10, lines 14-24 and lines 41-65 (ohmmeter block 158 and signal generator block 162), and col. 11, lines 7-27 (ground fault detector block 166 and capacitance meter block 168)). It is readily apparent from these passages that signal lines are disconnected to perform the various measurements for diagnosing faults, and not in response to detecting wiring faults. Reporting fault conditions is the only response to detecting fault conditions taught by either Christensen or Eryurek. Therefore, for these reasons, in addition to the reasons detailed in applicants previous response, claims 1-40 are neither anticipated nor rendered obvious by the proposed combination of the Eryurek and Christensen references.

CONCLUSION

For at least the foregoing reasons and those presented in applicants' previous response, reconsideration and withdrawal of the rejection of the claims and allowance of the currently pending claims are respectfully requested. Should the Examiner wish to discuss the foregoing or any matter of form in an effort to advance this application towards allowance, Examiner Roman is urged to telephone the undersigned at the indicated number.

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Respectfully submitted,

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